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A

CATECHISM

OF

Natural History;

OR, THE

ANIMAL KINGDOM DISPLAYED:

BEING A

Pleasing and interesting Account

OF

Birds, Beasts, Fishes, and Insects.

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NATURAL HISTORY.

Philosophy, dividing the Animals into Classes.

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FIFTH EDITION.

LONDON:

Printed by Cox and Baylis, Great Queen Street, Lincoln's-Inn-Fields,

FOR G. AND W. B. WHITTAKER,

AVE MARIA LANE.

1821.

ADVERTISEMENT.

Though Natural History has long been regarded as a study more beneficial to mankind than any other, yet few attempts have been made to facilitate the progress of a child in this valuable and interesting science. However deficient, therefore, this Catechism may be in explaining the wonders or developing the mysteries of Nature, it is hoped that an acquaintance with the leading features may be gained by an attentive perusal; particularly as it is produced in that form to which the instructors of youth, in the present enlightened age, have given so decided a preference.

A

CATECHISM

OF

NATURAL HISTORY.

CHAP. I.

INTRODUCTION.

Question. WHAT is meant by Natural History?

Answer. Natural History is the most important and extensive science that can be studied; and embraces a knowledge of all the animate and inanimate objects contained in the world.

Q. Of what use is the study of this science?

A. The study of Natural History, rationally applied, is the basis of true religion; and before the Almighty Author of Nature thought fit to reveal his sacred truths to mankind, they had no other guide than the contemplation of his

Works, to direct them to a knowledge of his power and goodness.

Q. Was this science cultivated by the Ancients?

A. Yes; Aristotle, the prince of Grecian philosophers, made the study of Nature one of his chief employments; and we are informed in Scripture, that Solomon, the wisest of men, "spake of trees, from the cedar that is in Lebanon, to the hyssop that springeth out of the wall; he spake also of beasts and of fowl, and of creeping things, and of fishes."

Q. Have not many eminent modern writers contributed to the diffusion of this useful science?

A. Yes; Buffon, Linnæus, Pennant, Goldsmith, and many others.

CHAP. II.

The Grand Divisions of Natural History.

Q. How is Natural History divided?

A. Into three parts, or kingdoms; namely,

the Animal Kingdom, the Vegetable Kingdom, and the Mineral Kingdom.

Q. What is comprehended under the *first* division?

A. The *Animal Kingdom* comprehends every thing which possesses life, sensation, and voluntary motion, whether existing on land, in water, or within the earth.

Q. By what scientific term is that branch of Natural History known, which treats of the nature and uses of animals?

A. *Zoology.*

Q. Of what does the *Vegetable Kingdom* consist?

A. It consists of all vegetables, or plants, and every thing that has life alone, without motion or sensation.

Q. What is that branch of science called which describes their properties, and arranges them in classes?

A. *Botany.*

Q. Of what is the *Mineral Kingdom* composed?

A. The Mineral Kingdom is composed of such substances as are destitute of life and motion;

namely, the earth itself, and whatever is concealed under the surface of the earth.

Q. What term is that which implies a knowledge of this branch of Natural History?

A. *Mineralogy.*

CHAP. III.

Of Man.

Q. WHY do naturalists begin their description of animated Nature with our own species?

A. Because MAN is endowed with powers and faculties by which he is enabled to render all other creatures subservient to his interests; and is, beyond doubt, the most exalted being on earth—the noblest work of his Creator.

Q. In what does his superiority consist?

A. His mental powers, or the use of REASON, distinguish him from all other living creatures; and in him are united the properties both of animal and rational existence.

Q. Are his bodily powers equal to those of various animals?

A. Yes, if taken collectively, though there are animals which excel him in some particular qualities; as, for instance, the horse in strength, the stag in swiftness, &c.

Q. Are there not many varieties in the human race?

A. Yes; for though all mankind are originally descended from one common parent, yet the influence of climate, civilization, and particular modes of life, have produced many striking diversities in the exterior appearance of the human form.

Q. Into what classes, or varieties, are they divided?

A. Buffon divides mankind into six classes, which he defines with great accuracy; and, as the most celebrated naturalists of the present day prefer the method adopted by him, we shall follow their example.*

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* Linnæus divides mankind into four classes, each comprizing one quarter of the globe, *viz.* Europeans, Asiatics, Africans, and Americans; this arrangement, however, is considered as too vague; for in each quarter there are found people more nearly resembling those of another, than that which they inhabit.

CHAP. IV.

The varieties of the Human Race.

Q. WHAT part of the globe* is considered as exhibiting the *first* distinct race of mankind?

A. The polar regions; including the Laplanders, the Samoieds, the people of Nova Zembla, the Kamtschadales, the Greenlanders, and Esquimaux; who nearly resemble each other, but differ from the rest of mankind in stature and complexion, as well as in modes of life and intellectual acquirements.

Q. Can you describe their peculiarities?

A. Yes; their manners are uncultivated and their appearance is uncouth. In stature they are diminutive, the tallest among them seldom ar-

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* This and the following chapter may be used as an entertaining and instructive exercise in Geography. The pupils may be advantageously employed in pointing out on a globe or map of the World, the particular situations inhabited by the different varieties of the human race herein described; while observations on the difference of climate and other causes, contributing to effect the marked distinction in our species, will interest and greatly edify them.

riving at the height of five feet, and many are not more than four. They are remarkable for broad faces, short and flat noses, high cheek bones, thick lips, and shrill voices. Their heads are disproportionably large, covered with straight black hair, and their skin is of a tawny colour.

Q. The picture you have given of these people tends to excite our pity. Have they no mental qualities to counterbalance these apparent bodily defects?

A. Unfortunately for them, the extreme cold of the climate, and the difficulty of procuring the conveniencies of life, leaves little time for intellectual acquirements; but notwithstanding their privations they are remarkably attached to their native country, and are pacific in their dispositions. Indeed, war is an object of their detestation; nor can they conceive how wealth, power, or the luxuries of civilized nations, can be considered worth contending for.

Q. Which is the second great variety of the human species?

A. The Tartar race is so considered; including the inhabitants of Tartary, China, and Japan; all of whom have a sufficient resemblance to each other, to discriminate them from other nations.

Q. Describe them.

A. The upper part of their face is broad and wrinkled, the lower part narrow, and inclining to a point at the chin; they have short flat noses, high cheek bones, large teeth, thick eyebrows, black hair, and their complexion is of an olive colour.

Q. Who compose the third class?

A. The southern Asiatics. In stature, shape, and features, they nearly resemble the Europeans, though their complexion is more or less tinted with the olive hue. In this class are comprehended the Hindoos, Persians, Arabians, and Egyptians. The Hindoos are remarkable for their total abstinence from animal food, which is caused by their belief in the transmigration of souls.

CHAP. V.

The varieties of the Human Race, continued.

Q. Who compose the fourth class?

A. The Negroes constitute the fourth variety of the human race. The different Negroes are diffused over the greatest part of Southern Africa, and are in general equally remarkable for their sable colour and smooth skins. Their noses are

flat and short, their lips thick, their teeth beautifully white, like ivory, and their hair soft, short, and woolly.

Q. What people form the fifth variety?

A. The original native Americans; they are distinguished from the rest of mankind by being of a red or copper colour. There is scarcely any variation among the tribes dispersed over the vast continent of America; all have high cheek bones, flat noses, and small eyes; and their hair is thick, black, and lank. Both men and women paint their bodies and faces; and fashion in this respect seems to be as much studied by them as dress is by other nations

Q. Which is the sixth division of the human race?

A. The sixth class comprehends the inhabitants of Europe; and with them may be ranked the Georgians, Circassians, the Mingrelians, the people of Asia Minor, and those inhabiting the northern parts of Africa.

Q. What distinguishes this class from the rest?

A. In Europe the human mind is enlightened by religion and philosophy; and the arts and sciences are cultivated with a degree of skill unknown to the other quarters of the globe. In their

persons they are fair and well made, and as they inhabit the most temperate climate, we behold the human form in its greatest perfection.

CHAP. VI.

Of the Classification of Quadrupeds.

Q. Into how many classes are quadrupeds divided?

A. The most celebrated naturalists have divided them into thirteen distinct classes. First, those of the horse kind; second, the cow kind; third, the sheep kind; fourth, the deer kind; fifth, the hog kind; sixth, the cat kind; seventh, the dog kind; eighth, the weasel kind; ninth, the rabbit kind; tenth, the hedgehog kind; eleventh, amphibious animals; twelfth, apes and monkeys; and thirteenth, winged quadrupeds.

Q. Are there no animals which form a distinct species of themselves?

A. Yes; the elephant, the rhinoceros, the hippopotamus, the cameleopard, the camel, the bear, the badger, the tapir, the sloth, and some others, may each be considered as forming a distinct species.

CHAP. VII.

Of Quadrupeds.

FIRST CLASS.

Q. GIVE me a description of that noble animal, the *horse.*

A. The horse is an animal possessing beauty, strength, activity, and usefulness, in whose welfare we are peculiarly interested. The English horses are now become superior to those of every other part of the world, for size and beauty; and are capable of performing what no others ever could attain to. It is well known that an ordinary racer can go at the rate of a mile in two minutes; and one horse has been known to draw the weight of three tons. In their wild state, horses herd together, and may be seen in droves of several hundreds.

Q. By what characteristics is a horse known?

A. The horse is distinguished from every other quadruped by having his hoofs single, and his tail covered with long hair. The female is called a *mare,* and the young one a *foal.*

Q. Does the horse, when dead, furnish us with any article of value?

A. Yes; the *skin* of the horse is tanned, and made into leather, and is used in making collars, traces, and other parts of harness. It is used also for shoes, and is called *cordovan*. The *hair* likewise forms a considerable branch of trade; and is employed for weaving the covers or seats of chairs, and for making fishing-lines, sieves, &c.

Q. What are the properties of the *ass*?

A. When very young, the ass is sprightly, and even tolerably handsome; but he soon loses these qualities, and becomes dull, stupid, and headstrong.

Q. Are they every where equally dull and stupid?

A. No; in Spain and some other countries they are much more elegant and tractable; and if they were treated with more care there is no doubt but they might be rendered much more serviceable to us than they now are. Wild asses are fierce, swift, and formidable; and when pursued will defend themselves with courage.

Q. Of what use are the skins of these animals?

A. Asses skins, being extremely hard, are manufactured into shoes, drum heads, and, when varnished, are cut into leaves for pocket books. In Persia and other eastern countries the article called *shagreen* is made from them.

Q. What is a *mule*?

A. A mule is a very hardy and useful animal, and is of a mixed breed, between the horse and the ass, both of which it somewhat resembles.

Q. What is a *zebra*?

A. A zebra is the most beautiful, though the wildest animal in nature. Its head is rather large, its back straight, its legs finely placed, and its tail tufted at the end. Every part of the male zebra is adorned with stripes of brown and white, regularly disposed, and the only distinction between the beauty of the male and female is, that the stripes of the latter are alternately black and white.

Q. Are not zebras very scarce?

A. Yes; so much so, that they are never seen in this country, except in collections of wild beasts.

CHAP. VIII.

Of Quadrupeds.

SECOND CLASS.

Q. WHAT animal of the second class will you first describe?

A. The *ox;* for of all the various ruminating animals, or such as chew the cud,* none deserve to be ranked before it, either for size or usefulness. The utility of oxen is worthy of our attention, for nearly the whole labour of agriculture may be performed by them; and, as food, the flesh of no animal is in greater estimation than that of the ox, which we call *beef.*

Q. By what names are the male and female distinguished?

A. The male is called a *bull,* and the female a *cow;* the young of these serviceable animals is called a *calf.*

Q. Is not the milk of the cow much esteemed?

A. Yes, its value is fully appreciated by us, and without it we should be deprived of one of the

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* The *cud* is that food which is lodged in the upper part of the stomach of certain animals, in order to be chewed over again.

most nutritive articles of subsistence. From it butter and cheese are made, and there are few of our most delicious viands that are not indebted to the cow either for their richness or flavour.

Q. Independent of food, do these animals furnish us with any thing of value, when slaughtered?

A. Yes; their *skins* are converted into leather, and are used by the saddler and shoemaker. *Vellum* is manufactured from the skins of very young calves, and the parings and offal of ox hides produce the substance called *glue*. Their leg-bones are used for handles of knives, &c., their horns for lanthorns; the fat they contain is converted into tallow, from which candles are made; and their blood is employed in clarifying sugar.

Q. What other animals of note are comprehended under this class?

A. The *urus*, or wild bull, which is chiefly found in Lithuania, and is prodigiously large; the bison, which differs from the bull, by having a hump between the shoulders and a long shaggy mane; the *zebu*, or Barbary cow; and the *buffalo*; which is an excessively strong and ferocious

beast, and furnishes us with very superior kind of leather, justly famed for its thickness, softness, and impenetrability.

CHAP. XI.

Of Quadrupeds.

THIRD CLASS.

Q. What animals are comprized in the third class?

A. The various kinds of sheep and goats.

Q. Give me a description of the *sheep*?

A. The sheep, in its present domestic state, is, of all animals, the most harmless and inoffensive; and is too well known to require a detail of its habits. The male is called a *ram*; the female, *ewe*; and the young one has the name of *lamb*.

Q. What are the chief uses of the sheep?

A. There is no part of a sheep but what is in some way advantageous to mankind. Its flesh, called *mutton*, supplies us with excellent food; its wool furnishes us with clothing; its skin is

manufactured into parchment and leather; and even its entrails are converted into an article called *cat-gut*, used as strings for musical instruments.

Q. Are there not many different kinds of sheep?

A. Yes, there are various breeds of sheep, and great pains are taken by agriculturists to improve the quality of the wool, by mixing them. The Spanish or Merino breed is much celebrated, and from their fleeces the finest cloth is made. In Persia, Egypt, and Tartary, there are sheep, called *broad-tailed* sheep, remarkable for a large and heavy tail, frequently weighing from twenty to thirty pounds.

Q. Are there any wild sheep?

A. Yes, the *moufflon* may be so called, as it bears all the marks of being of the primitive race. They range wild in the deserts of Tartary, and the uncultivated parts of Greece, Sardinia, and Corsica.

Q. You say that *goats* are included in this class?

A. Yes, goats approach more nearly to the character of sheep than any other animal; but they are possessed of a greater share of instinct, and are stronger, swifter, and much more courageous. The goat is lively and playful, and

delights in climbing the steepest mountains, for which nature has peculiarly fitted it, by forming the hoof in such a manner, that it can walk as securely on the ridge of a house as on level ground. The *Morocco leather* is made of the skin of this animal.

Q. Are there not several of this species?

A. Yes, the Angora goat, which is beautifully white; the Assyrian goat, distinguished by its broad hanging ears; the little goat of Africa, not larger than a kid; the blue goat, found at the Cape of Good Hope; and the Juda goat, nearly resembling ours, which is a native of the coast of Africa.

Q. Name the rest which are contained in the same class.

A. The *ibex*, or wild goat, known by its long horns; and the *chamois*, admired for its elegance and vivacity.

Q. Are there not some of these which may rank between the goat and the deer?

A. Yes, called *gazelles*, but commonly known by the name of antelopes, which are handsomely formed, and possess extraordinary swiftness. They are divided into twelve varieties, namely, the *gazella*, the *kevel*, the *corin*, the *zieran*, the

koba, the *algazel*, the *pazan*, the *ranguer*, the *antelope*, the *lidme*, the *Indian antelope*, and the *musk*; which last is remarkable for having a small bag, about the size of an egg, under its belly, containing a strong perfume called *musk*.

CHAP. X.

Of Quadrupeds.

FOURTH CLASS.

Q. How are the animals belong to the *deer* tribe distinguished?

A. They have large branching horns, which they shed annually, and are renewed; their skins, when young, are remarkable for their softness; they are extremely active and shy; and inhabit woods and sequestered situations.

Q. Describe the *stag*.

A. Nature seems to have designed this peaceable animal as an ornament of the forest. The lightness of his motions, the easy elegance of his form, the beauty of his branching horns, his strength and swiftness, are all calculated to ex-

cite our attention. His general colour is a reddish brown, and from his horns smaller ones sprout out, which are called *antlers;* and a fresh antler generally makes its appearance every year, so that we have only to count the number of them to know his age. The stag is very delicate in the choice of his food, which consists of grass and the shoots of young trees.

Q. What others nearly resemble the stag?

A. The *fallow deer* the *roe-buck*, and the *axis;* the male of the fallow-deer is called a *buck,* the female a *doe,* and the young one a *fawn.* On the Continent they are to be met with in a wild state; but in this country they are only seen in parks. Their flesh is called *venison,* and is considered by epicures a delicious treat.

Q. In what does the roe-buck differ from the fallow-deer?

A. The roe-buck is much smaller than the fallow-deer, and its habits are different. Not associating, like others of the deer kind, in herds, it exhibits an example of constancy, and resides continually with its favourite female and young ones.

Q. Name the other animals comprized in this class.

A. The *elk* and *rein-deer*; the elk is the largest kind of deer, frequently the size of a horse, and inhabits the forests of North America and Asia.

Q. Is not the rein-deer a very useful animal?

A. Yes; there is no animal in the world more truly serviceable than the rein-deer is to the Laplander. Over regions of ice and snow, yoked to a sledge, this creature conveys the heaviest burdens, and his astonishing speed enables him to travel nearly a hundred miles in one day. The female supplies the Laplander with milk, which produces him butter and cheese; and the flesh of these animals, when killed, provides him with meat.

CHAP. XI.

Of Quadrupeds.

FIFTH CLASS.

Q. In this class, which includes all those of the hog kind, which will you first describe?

A. The *wild boar*, which is, in fact, the hog in a wild state; and the difference observable in

them arises from the long domestication of the tame hog.

Q. Describe the wild boar.

A. The wild boar has the head and muzzle larger and stronger than the hog, the tusks longer, and the hair, called bristles, always black; he is very ferocious and unmanageable, and will attack dogs, horses, and even men.

Q. What characterizes the tame *hog?*

A. Domestic hogs are the most inactive and brutal animals in nature, and devour the filthiest food with voracity. They frequently eat till they can stand no longer, and when put up to fatten will remain whole weeks in the same position. Though their flesh is eaten by us, the Jews and Turks consider it impure, and will not touch it.

Q. What other animals of this class can you give me an account of?

A. The *peccary,* which is a native of South America, and is smaller than the common hog; the *capibara,* or, as some have termed it, the water hog, from its frequenting the borders of lakes and rivers; and the *babyroussa,* which, instead of bristles, has fine hair and four long crooked tusks.

CHAP. XII.

Of Quadrupeds.

SIXTH CLASS.

Q. In describing the sixth class, we will begin, if you please, with the *cat.*

A. Of all animals, when young, none are more amusing or playful than the kitten; but as it increases in age, it is found artful and insinuating, watching the most favourable opportunities to seize its prey, or purloin food, with which it runs off, and remains at a distance, till its offence may be forgotten.

Q. Have not these domestic animals many qualities which render them agreeable?

A. We certainly must allow that cats are active, cleanly, and delicate; their skin is soft, and their fur is naturally sleek and glossy. With all their want of aattchment, which seems to be natural to the species, yet we frequently find them pleasant companions, and they are of the greatest service to us in destroying mice and rats.

Q. Are not wild cats to be found in some countries?

A. Yes; there are some in every quarter of the world; they are larger than the domestic ones, and much more formidable; their colour is a yellowish white, streaked with black and grey; the legs are invariably black, and the tail is alternately black and white.

Q. Is not the *lion* classed with animals of the cat kind?

A. Yes, on account of his having sharp and formidable claws, which he can sheathe or unsheathe at pleasure, and from deriving his subsistence from the prey of other animals. His figure is noble and dignified, and his voice terrible. The face of the lion seems to indicate majesty, to which his large mane materially contributes; he is styled the king of beasts, for no animal can conquer him.

Q. Is not the lion remarkable for magnanimity?

A. Yes; although he is so amazingly powerful, the lion is too generous in his nature to torture those in his power unnecessarily, and he has been frequently known to protect weaker animals from the fury of such as have pursued

them. The female is called a *lioness*, and is distinguished from the male by being smaller and having no mane.

Q. What animal will you next give me an account of?

A. The *tyger*, which is one of the fiercest, and at the same time one of the most beautiful of all quadrupeds, is about the size of the lion, and is remarkable for the smoothness of its hair, which is of a yellowish brown, and for the jet black stripes with which it is marked. It is a native of various parts both of Asia and Africa.

Q. What are its qualities?

A. The tyger is fierce without provocation, and cruel in the extreme. In attacking a flock or herd, it gives no quarter, and will wantonly kill more than it can devour. Its strength is prodigious, and it is said that whenever it kills a large animal, such as a horse or buffalo, it drags its prey to the forest with such swiftness, that the weight it sustains scarcely retards its motion. The skins of these animals are used as hammer-cloths for carriages, &c., and are considered more as objects of curiosity than real use.

Q. Describe the panther, ounce, and hunting-leopard?

A. These animals are all of the cat kind, and in their habits resemble the tyger. The *panther* has the upper part of the body covered with spots, and the lower part striped. The *ounce* and *hunting-leopard* are trained for the chase in India and Persia, and their mode of seizing the antelope, or other animal, is by creeping along unperceived, till they approach near enough to dart upon their prey. Their skins are all valuable, and are converted into excellent furs.

Q. Is not the *leopard* very similar to the last-mentioned beasts?

A. Yes: its skin, however, is more beautiful, but in its nature it is equally cruel and ferocious.

Q. What kind of animal is the *lynx*?

A. The skin of the lynx is spotted, but its tail is much shorter than that of the leopard. Its ears are also considerably longer, and tipped at the points with a black tuft of hair. It is very fond of climbing the highest trees, where it catches squirrels, ermines, &c., and will kill beasts much larger than itself. The *caracal* and *serval* bear a near resemblance to the lynx, but are rather smaller.

CHAP. XIII.

Of Quadrupeds.

SEVENTH CLASS.

Q. What have you to say of the *dog*?

A. The dog is the most intelligent of all quadrupeds, and on no one can we depend for equal fidelity and attachment. He is obedient and attentive, and performs whatever we wish him to do with alacrity. Satisfied with the most ordinary food, he watches his master's property day and night, and will risk his life in defending it. The ill-usage he may receive he seems to forget, and will lick the hand that chastises him.

Q. Are there not many kinds of dogs?

A. Certainly, but they still retain such a similiarity, that it is perfectly easy to distinguish them from any other species. The principal are the bull-dog, the mastiff, the pointer, the greyhound, the spaniel, the hound, the shepherd's dog, the lap-dog, and the terrier; but there are a variety of others, which may be considered mongrels.

Q. Does not the *wolf* rank in this class?

A. Yes, in appearance the wolf very much resembles the dog, but in disposition no two animals can be more dissimilar, nor can any have a more decided antipathy to each other.

Q. Describe the habits of the wolf.

A. The wolf is very ravenous and insatiable. He will not only attack beasts but men, when pressed with hunger; and if he finds himself too weak for a large animal, the female accompanies him. Sometimes they go together in great numbers to attack other beasts, and then they frequently destroy whole flocks and herds.

Q. Of what use is the wolf when dead?

A. The skin of a wolf is used by furriers, but the flesh is so rank that no animal will touch it.

Q. Describe the *fox*.

A. The artful disposition of the fox is well known, and he finds it a much easier method to provide himself with food by stratagem, than by encountering danger. He always makes choice of his abode near villages, where he can readily visit the farm yards, and feast on poultry, and as he carries on his depredations in the night, he frequently kills and hides several fowls or geese more than he wants at that time, and fetches them away at another opportunity. The fox is

fond of grapes and honey, but less delicate food will serve him when dainties are not to be procured.

Q. What sort of animal is the *jackall?*

A. The jackall very much resembles both the fox and wolf in make; its colour is yellow, and on that account, it has sometimes been called the golden wolf. To the savage ferocity of the wolf, the jackall adds the familiarity of the dog, and seems less afraid of man than any other animal.

Q. Give me an account of the *hyæna.*

A. The hyæna is a most furious and dangerous beast, and it is impossible to tame it, however young it may be taken. It is something like the wolf, but more formidable and courageous; and will resist the attacks of the tyger with success, and defend itself against the lion. It is a native of the warmest parts of Asia and Africa. It has longer legs than the wolf, the body thicker, the hair of a yellowish brown, the ears long and naked, and the muzzle flat.

CHAP. XIV.

Of Quadrupeds.

EIGHTH CLASS.

Q. How do you distinguish animals of the *weasel* kind?

A. They are known by the length and slenderness of their bodies. They are in general cruel, voracious, and cowardly. The weasel is the smallest of this tribe, and is not more than seven inches long, and an inch and a half in height. It destroys young poultry, sucks eggs, and pursues rats and mice into their holes, where it soon kills them.

Q. Is not the *ermine* very much like the weasel?

A. Yes, but it is rather longer. The colour of the body is a light brown, but in the most northern parts of Europe it becomes perfectly white at the approach of winter, at which time its fur is deemed the most valuable of any.

Q. What others are there composing this class?

A. The *ferret*, the *pole-cat*, the *martin*, the

sable, the *ichneumon,* the *squash,* the *skink,* the *zouille,* the *genette,* the *civet,* the *glutton,* and the *suricate.*

Q. Are not some of these remarkable for some particular quality?

A. Yes, the *martin* and *sable* have exceedingly fine skins; and on that account they are killed by the hunters of Siberia and other cold countries. The *ichneumon* is remarkable for its courage and fierceness, and is of great service to the inhabitants of Egypt, by destroying serpents and other noxious reptiles. The *civet* produces a strong perfume, known by the name of the animal, which is highly valued; and the *glutton* is so called from its voracious appetite.

CHAP. XV.

Of Quadrupeds.

NINTH CLASS.

Q. What animals are contained in the ninth class?

A. Those of the *rabbit* and *hare* kind; the

latter of which, being the largest of its tribe, I shall first describe. The *common hare*, which is well known in this country, and is to be found in Europe, Asia, and America, is distinguished by its long ears, short tail, and large prominent eyes, placed so far backward in the head, that it can see behind it as it runs.

Q. Are not hares remarkably timid?

A. Yes; there is no animal more timid or inoffensive than the hare, yet no one has more persecutors. Dogs, cats, and all the weasel tribe, continually annoy it; but man destroys more than all its other foes. The flesh of the hare is much esteemed by us, though the ancient Britons abhorred it.

Q. Does not the *rabbit* greatly resemble the hare?

A. Yes, the wild rabbit certainly does, but its ears and hind legs are shorter. The colour of the wild rabbit is a dusky brown above, and whitish on the under parts. The domestic rabbit is of various colours, and is larger than the wild one. The fur of rabbits and hares is a principal substance employed in making hats; and its flesh is considered very wholesome food—wild rabbits are however to be preferred.

Q. Describe the *squirrel.*

A. The squirrel is smaller than the rabbit, and has a beautiful brushy tail, which it can spread so as to cover the whole body. Its colour is a reddish brown, and the ears are ornamented with long tufts of hair. It is generally seen leaping from one branch of a tree to another, or sitting on its hind legs, and using its fore paws in conveying nuts or acorns to its mouth.

Q. What kind of animal is the *flying squirrel?*

A. The flying squirrel is much less than the common squirrel; and from the peculiar formation of its skin, which spreads out between the hind legs, it is capable of taking surprising leaps, so as to resemble the act of flying.

Q. What other animals are included in this class?

A. The *marmot,* the *agouti,* the *paca,* and the *guinea-pig.*

Q. Give me some account of them.

A. The *marmot* is a native of the Alps, and when taken young may be easily tamed, and taught a variety of agreeable tricks. They are very inoffensive, and in winter form curious retreats in the side of a mountain, where they exist without food. The *agouti* differs from a rabbit by having

hair instead of fur, and is a voracious eater. The *paca* is distinguished from the agouti, by its skin being very prettily spotted. The *guinea-pig* is the most timid and helpless of all animals; and the male and female never sleep at one time, but while one enjoys repose, the other is constantly on the watch.

Q. Are not *rats* also comprehended in the same class?

A. Yes, they are, though their habits and dispositions do not correspond with those of the rabbit kind, being voracious and mischievous. There are three kinds of rats—the brown rat (which is the largest and the strongest), the black rat, and the black water rat. The mouse and the mole are likewise included in the same class.

CHAP. XVI.

Of Quadrupeds.

TENTH CLASS.

Q. By what are the animals composing this class distinguished?

A. By having sharp prickles in the place of hair, which they use in their defence.

Q. Describe the *hedgehog*.

A. The hedgehog is about six or seven inches long, and is covered with prickles on the head, back and sides, but the nose, belly and breast are clothed with fine soft hair. As soon as the hedgehog perceives an enemy, it rolls itself up like a ball, presenting a surface of sharp points, which is so annoying to any animal that attacks it that it soon declines the combat.

Q. What are the *tanrec* and *tendrac*?

A. In size they are less than the hedgehog, and have not the power of rolling themselves up like him; nor are they so well defended with sharp prickles.

Q. Is not the *porcupine* a very surprising animal?

A. Yes; the quills of the porcupine render it extremely formidable; but it is not true, that they can discharge these quills and inflict wounds at a distance, as some have asserted; they are of great use in defending the porcupine from the attacks of other animals, particularly serpents, to whom it has the most decided enmity; and these creatures never meet without a mortal en-

gagement. The *coando*, and *urson* also have quills, but much shorter than those of the porcupine.

Q. May not the *pangolin* and *armadillo* be ranked in this class?

A. Yes; nature having given them a coat with hard scales, which, like the prickles of the hedgehog, serve for their defence; and they have the power of rolling themselves up in the same manner. They are naturally inoffensive, and subsist on vegetables.

CHAP. XVII.

Amphibious Animals.

ELEVENTH CLASS.

Q. What are amphibious animals?

A. Those quadrupeds which can exist either on land or in water.

Q. Which will you first describe?

A. The *otter*, which is about two feet long from the tip of the nose to its tail; the head and nose broad and flat; short neck, long body, and

small eyes. The legs are very short, and each foot is furnished with strong broad webs, like those of water-fowl. It is very expert in catching fish, on which it subsists.

Q. Describe the *beaver?*

A. A beaver has a broad flat tail, covered with scales, which serves as a rudder, to direct its motions in the water. It has membranes between the toes on the hind feet only, the fore feet supply the place of hands like those of the squirrel; and it is about two feet long, and a foot high.

Q. What is there worthy of remark in the habits of beavers?

A. In the summer the beavers assemble in great numbers, and construct large habitations, divided into small apartments, on the side of a river, which they do with surprising facility. With their teeth they cut large pieces of wood, and fix them in the ground, at a little distance from each other, placing smaller twigs between them; they then fill up the cavities with clay, and cement the whole together by mixing, and moistening it with water, which they perform with their tails.

Q. Give me a description of the *seal?*

A. The seal resembles a quadruped in some respects, but is also like a fish. It has a round

head, broad nose and large sparkling eyes. From its body, which is covered with short shining hair, to its tail, it gradually grows more taper, like a fish, and its claws resemble fins. Seals are caught for the use of their skins, and the oil which their fat yields.

Q. Are there not others of the seal kind?

A. Yes, the *ursine seal*, found at Kamtschatka; the *sea lion*, so called from having a mane; the *morse*, distinguished from the rest by having two long tusks; and the *manati*, which has a fish's tail, and is quite destitute even of the vestiges of those bones which form the legs and feet of others of its kind.

Q. What is the *duck-billed platypus*?

A. The duck-billed platypus is in some respects a little like a small otter, and from the broadness of its snout, which resembles the bill of a duck, it takes its name. Its feet are webbed and the legs very short. Its whole length does not exceed thirteen inches.

CHAP. XVIII.

Animals of the Monkey kind.

TWELFTH CLASS.

Q. WHAT is an *ourang outang?*

A. The ourang outang, or wild man of the woods, is of various sizes, from three to seven feet high. Its stature is however generally less than that of a man, but its strength much greater. It is said they are so powerful in some of the tropical climates, that it would take ten men to secure one of them; and that they will attack the largest elephant with clubs, and compel him to leave that part of the forest which they claim as their own.

Q. Are there not several kinds of apes and baboons?

A. Yes; the *common ape*; the *gibbon*, or long-armed ape; and the *cynocephalus;* neither of which have any tails; and the *baboon*, the *mandril*, and *wanderow*, which have very short tails.

Q. What is the chief difference between them and *monkeys?*

A. The monkeys have long tails, and some make use of them to coil round any object, so as to support themselves in otherwise perilous situations. They are a most active and mischievous race, and seem to be of but little use, except in some countries, where they are eaten by the natives, and are said to be very palatable. An European, however, would find it very repugnant to his feelings to partake of such food.

CHAP. XIX.

Winged Quadrupeds.

THIRTEENTH CLASS.

Q. What do you mean by winged quadrupeds?

A. Those whose bodies evidently entitle them to a place among quadrupeds, but have the means of extending the membrane, or skin, over the whole body, and of flying in the air.

Q. What are they called?

A. *Bats.* There are many varieties of this species; but the bat most common in England is about the size of a mouse; and, independent of its wings, very much resembles that little animal.

In Madagascar there is a very large kind of bat, called the *rousette*, which, when the wings are extended, is four feet broad and a foot long. Its colour and the shape of its head are like a fox, and on that account it has sometimes been called the flying fox. They are hideous looking creatures, and do an incredible deal of mischief.

CHAP. XX.

The Elephant, the Rhinoceros, the Hippopotamus, and the Tapir.

Q. What kind of animal is the *elephant?*

A. The elephant surpasses all other terrestrial animals in size, and in sagacity he is inferior only to man. Like the dog he is susceptible of gratitude, and capable of attachment; he possesses the most astonishing strength, yet, when tamed, he submits to the will of his master, and is a pattern of fidelity and docility.

Q. Proceed in your description of these remarkable animals.

A. Elephants have been seen fifteen feet high; their colour is an ash grey; and they have a

trunk which they can shorten or lengthen, and with which they are able to pick up money from the ground, untie knots, and perform many things equally curious to the beholder. In their appearance, elephants are clumsy and unsightly; but their instinct is so superior, that they seem to think, reflect, and deliberate. Their tusks furnish us with that elegant and useful substance called ivory.

Q. What is the *rhinoceros?*

A. The rhinoceros is, next to the elephant, the most powerful of all beasts. He is twelve feet long, and from six to seven feet high. His limbs are covered with an impenetrable skin, that defies the hunter's dart, or the attacks of the lion and tiger, and which is converted into the hardest kind of leather.

Q. Describe the *hippopotamus.*

A. The hippopotamus is equally large and formidable as the rhinoceros. They reside chiefly at the bottom of lakes and rivers, and depend on fish for subsistence, which they catch with great celerity. When they are compelled to seek their food on land, their depredations are truly alarming to the helpless Africans, who dare not resist them for fear of their resentment.

Q. What is the *tapir?*

A. The tapir may be considered the hippopotamus of America, but it is much smaller and less to be dreaded.

CHAP. XXI.

The Camel, the Dromedary, the Cameleopard, the Bear, the Badger, the Ant-eater, and the Sloth.

Q. Give me a description of the *camel?*

A. The camel is so useful an animal to the Arabians that they are considered sacred by them; and without their assistance those people could neither traffic, travel, nor subsist. In Turkey, Persia, Arabia, and Egypt, commerce is entirely carried on by means of camels, no carriage being so speedy and reasonable in those countries. They are admirably adapted for the climate, by being capable of enduring thirst, and from being able to perform immense journeys over the most unfertile and sandy deserts.

Q. In what does the *dromedary* differ from the camel?

A. The principle difference is, that the dromedary has but one hump on the back, while the

camel has two; and that in size and strength it is not equal to the latter. They both furnish their owners with milk; and their hair, which they shed annually, provides them with clothing.

Q. Describe the *cameleopard.*

A. The cameleopard bears some resemblance both to the camel and the deer, though it neither possesses the strengh of the one nor the swiftness of the other. Its height, when full grown, is about seventeen feet, and its skin is beautifully spotted with brown on a white ground.

Q. What kind of animal is the *bear?*

A. There are three sorts of bears, the brown bear, the black bear, and the great Greenland or white bear. The brown bear is a savage animal, inhabiting the most dangerous precipices and uninhabited mountains. In Canada the black bears are very common, and their flesh is so much esteemed, that their hams are imported to England. But the white bear of Greenland is by far the largest, and yet the most timorous. The affection of these animals for their young has been noticed as truly wonderful.

Q. Give me some account of the *badger.*

A. The badger is a solitary stupid animal, that seldom ventures far from his hole. It sleeps the

greatest part of its time? but when roused by the pursuit of dogs, makes a very vigorous resistance.

Q. What is the *ant-eater*?

A. The ant-eater, as its name implies, subsists entirely on ants and other insects, which it allures by laying out its tongue on the ant-hill, till the insects get upon it, when it swallows them, and this it repeats till it has procured a sufficient quantity to satisfy it.

Q. Describe its appearance.

A. The legs of the ant-eater are very short, and the nose, or snout, is extremely long and taper. There are three varieties of this animal, differing much in size, the largest being four feet long, the next eighteen inches, and the smallest only seven.

Q. Describe the *sloth*.

A. The sloth is the most inactive animal known, and lives entirely upon vegetable food. When it is impelled by hunger to seek subsistence, it crawls to some tree, which it strips of its bark and leaves, and being unable to descend, drops on the ground from the branches. The strength of its feet is so great, that it is scarcely possible to free any thing from its claws.

CHAP. XXII.

*BIRDS.**

Q. As you have given a very satisfactory account of quadrupeds, I shall, in this place, dispense with a minute detail of the feathered tribe, but beg you will proceed to some general observations on them.

A. Previous to arranging them in classes, I will mention the ostrich, which is the largest, and bears the nearest affinity of any to quadrupeds. It is seven feet high, from the top of the head to the ground; and at a distance might be mistaken for a camel. It inhabits the sandy deserts of Arabia, and there is no place, however barren, that is not capable of supplying it with provisions; its powers of digestion enabling it to devour leather, stones, iron, or any other hard substances.

Q. How do you divide them in classes?

A. I shall follow the plan of Linnæus, who

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* Since this Catechism was first published, it has been judged expedient to produce three other separate ones on Natural History, *viz.* the Catechisms of *Ornithology*, *Ichthyology*, and *Entomology*; forming, with this, a complete and scientific description of Beasts, Birds, Fishes, and Insects.

divides them into six classes; namely the *rapacious* kind, the *pie* kind, the *poultry* kind, the *sparrow* kind, the *crane* kind, and the *duck* kind, or *water-fowl*.

Q. What am I to understand by the *rapacious* kind?

A. By the rapacious kind is meant those which eat flesh, and subsist by rapine. They consist of *eagles*, *vultures*, *falcons*, *kites*, *buzzards*, *hawks*, and *owls*; they are distinguished by a strong hooked beak, short legs and sharp crooked talons.

Q. What is the principal of this class?

A. Of this class the *eagle* is the largest and most noble. It is about three feet in length, and the extent of its wings is upwards of seven feet. This bird may justly be styled the king of the feathered race; and, like the lion among quadrupeds, is remarkable for courage and magnanimity.

Q. Describe the Egyptian or *aquiline vulture*.

A. The aquiline vulture is a large bird of prey, having a naked head and neck, and a black hooked beak. In its appearance it is disgusting, but it is nevertheless of the greatest service to mankind, in those hot countries where it resides, by devouring the remains of animals substances, which would otherwise be left to putrify. These

vultures were held in such veneration by the ancient Egyptians, that any persons who destroyed them was punished with death.

Q. Describe the peculiarities of the *pie* kind.

A. The pie kind have their bill resembling a wedge; their body is slender, and their voices hoarse; they may be known also by being noisy and chattering. In this class may be reckoned the *raven*, the *rook*, the *crow*, the *magpie*, the *parrot*, the *cockatoo*, the *jay*, the *cuckoo*, the *woodpecker*, &c.

Q. Describe the *raven*?

A. The raven is the largest bird of this kind; its plumage is of a blueish black colour, and it is to be found in most European countries, and also in North America. They are very serviceable in destroying mice, rats, and other vermin, and are easily domesticated. The ancients esteemed these birds, from a notion that by the various tones or modulations of their voice future events might be foretold.

Q. What birds are comprized in the *poultry* kind?

A. The *peacock*, the *turkey*, the *domestic cock*, the *pheasant*, the *guinea-fowl*, the *bustard*, the *partridge*, the *quail*, the *goose*, &c.

Q. What are their peculiar properties?

A. They are furnished with short strong bills and short wings, with which they are unable to fly far. Their food consists chiefly of grain; and, except the peacock, they furnish us with palatable and wholesome food.

Q. Give a description of the *peacock.*

A. The peacock has a most beautiful plumage, and when its tail is expanded, no other bird can vie with it for beauty. Its voice, however, is a horrid scream, and it is remarkable for gluttony.

CHAP. XXII.

Birds, continued.

Q. What birds compose that class which are called the *sparrow* kind?

A. The *thrush*, the *blackbird*, the *fieldfare*, the *starling*, the *nightingale*, the *mock-bird*, the *red-breast*, the *lark*, the *wren*, the *canary bird*, the *goldfinch*, the *bullfinch*, the *sparrow*, the *swallow*, the *martin*, and the *humming-bird.*

Q. By what are this class distinguished?

A. Some of them delight us with the beauty of their plumage, others with the melody of their notes, but all contribute to enliven the rural scene and exhilirate the mind. They live either on insects, grain, or fruit; so that though we may be offended with their intrusive visits in our fields and gardens, we are compensated by the use they are of in destroying the various kinds of vermin that infest them.

Q. Describe the *nightingale.*

A. This charming bird, which in solitude delights us with its melody, is a small migratory bird, of a rusty brown colour, generally arriving in this country in the month of April, and leaving it in September, retiring into a warmer climate during winter.

Q. Is not the song of the nightingale highly admired?

A. Yes; the song of the nightingale is peculiarly mellow and plaintive, and its compass is greater than that of any other bird. His usual resort is the side of some hill, where, perched upon a tree or shrub, he interrupts his warblings by making short pauses, as if listening to the echoes of his own notes.

Q. What is the next class?

A. The *crane* kind. In this class may be comprehended the *crane*, the *stork*, the *heron*, the *bittern*, the *spoonbill*, the *flamingo*, the *avocetta*, the *woodcock*, the *water-hen*, and the *coot*.

Q. How may they be known?

A. By the length of their legs, and their frequenting rivers and marshy places. Their necks and bills are also much longer than those of other birds, which are adapted to their mode of subsistence, being calculated to fetch up their food from the bottom of shallow waters. They are distinguished from water-fowl, from their being unable to swim.

Q. How are *water-fowl* divided?

A. Water-fowl naturally come under three divisions, *viz.* those of the duck kind, with flat broad bills and webbed feet; those of the penguin kind, with round bills and short wings; and those of the gull kind, with long legs and round bills, and which fly along the surface of the water to seize their prey.

Q. What are the names of the principal of them?

A. 1. The *swan*, the *wild goose*, the common goose, the *wild* and *tame duck*, and the *king-*

fisher;—2. the *penguin* and the *puffin*;—3. the *pelican*, the *albatross*, the *cormorant*, the *gannet*, and the *gull*.

Q. Describe the *swan*?

A The tame swan is the largest of all British birds, and is distinguished from the wild swan by its being larger, and by the base of the bill being black instead of yellow. They form their nests of grass, and generally among reeds near the water. The eggs are large and white, and six or eight in number.

Q. For what are these birds mostly esteemed?

A. Chiefly for their beauty and stately appearance; though formerly they were considered a delicacy, and served up at almost every great feast. At present, the *cygnets*, or young swans, only are eaten, and great numbers are annually fattened in the county of Norfolk.

Q. What kind of bird is a *penguin*?

A. A penguin is an aquatic bird, with a strait and narrow bill, and legs situated so far back that it walks in an upright position; its wings are small and not calculated for flight, being covered over with a broad and strong membrane.

Q. Where are these birds found?

A. These birds are found in the different

islands of the South Sea; and they are so fearless of the approach of mankind, that there is no difficulty of knocking them down with sticks. Their flesh is eaten by seamen when they are short of provisions, and is sometimes salted like beef.

Q. Describe the *pelican*?

A. There are several species of pelicans, but the most remarkable is the great white pelican, which is furnished with a bag attached to the lower part of its bill, large enough to contain a great number of fish. On these the pelican feeds; and by means of this bag it is enabled to convey them as food for its offspring.

CHAP. XXIII.

*FISHES.**

Q. In speaking of Fishes, it will not be here necessary to paticularize them, nor enter into a minute description of the different kinds; but to give me some general information of their nature,

* The Catechism of *Ichthyology* well supplies the deficiencies of this short sketch.

habits and properties; and, in the first place, to point out the classes into which they are divided.

A. Fishes are divided into the *cetaceous* or whale kind; the *cartilaginous*, or gristly kind; the *spinous*, or those fishes whose bones resemble sharp thorns; and the *testaceous*, or such as are covered with shells instead of scales.

Q. Offer some general remarks applicable to fishes?

A. Most fishes have nearly the same external form; sharp at the ends, swelling in the middle, and their bodies provided with fins, by which they are enabled to swim with great celerity and ease. Every part of their body seems exerted to assist their motion in the water; the fins, the tail, and the flexibility of the body are alike employed, and it is to the union of these that they owe their great velocity.

Q. What are the general habits of fishes?

A. As neither the sea nor fresh water produces an abundance of vegetables, like the earth, the inhabitante of the watery element could not be supported, did they not continually devour one another.

Q. How is it, then, that there is always such an abundance of them?

A. Their astonishing fecundity amply provides them with the means of subsistence; for it is no more wonderful than true, that the flounder produces above a million, and the maekarel above five hundred thousand of its species at one time. Thus two wise purposes are answered by this amazing increase: there are enough produced to preserve the species in the midst of its numberless enemies, and to furnish the rest with a sustenance adapted to their nature.

CHAP. XXIV.

Fishes, continued.

Q. Describe one of the *cetaceous*, or *whale* kind?

A. The largest animal in the whole creation is the great Greenland whale. It usually measures upwards of sixty feet in length; its fins are from five to eight feet long, and its tail is twenty-four feet broad. The tongue alone produces several hogsheads of *blubber*. The substance called *whalebone* is taken from the upper jaw of this stupendous animal, and is very different

from its real bones, which are hard, like those of large quadrupeds, and full of marrow.

Q. What quantity of oil does a whale produce?

A. Every whale is computed to yield, on an average, from sixty to a hundred barrels of oil, of the value of about four pounds sterling per barrel, which, with the whalebone, is sufficient to prove how valuable this fish is to us in a commercial point of view. The method of killing whales is very interesting, but too long to give a particular account of here.

Q. In what do the *cartilaginous* fish differ from the cetaceous and others?

A. Fishes of the cartilaginous kinds have bones always soft and yielding; and age, that hardens the bones of other animals, rather contributes still more to soften theirs.

Q. How are they divided?

A. Into four kinds; 1st. those of the *shark* kind: namely, the great white shark, the balance fish, the hound fish, the monk fish, the dog fish, the basking shark, the zygæna, the cat fish, the blue shark, and the sea fox. 2dly, those called *flat fish;* in this tribe may be placed the torpedo,

the skate, the ray, the thornback, and the fire-flare. 3dly, the *slender snake-shaped* kind; such as the lamprey, the pride, and the pipe-fish; and 4thly, those of different figures and natures that do not rank in the former divisions; namely, the sturgeon, the sun-fish, the tetrodon, the lump fish, the sea snail, the chimera, and the fishing frog.

Q. What is the third general division of fishes?

A. The *spinous* or *bony* kind. These are distinguished from the rest by having a complete bony covering to their gills; by their being furnished with no other method of breathing but gills only; and by their bones being sharp and thorny. There are already known more than four hundred species of the spinous kind; so that the number of the two former are trifling in comparison to them.

CHAP. XXV.

Fishes, continued.

Q. Describe the fourth general division, or such as have shells?

A. In this division must be ranked all such as are called *crustaceous* and *testaceous* animals; both unlike fishes in appearance, and which, from having shells on the outside instead of bones in the inside, seem to invert the order of nature.

Q. What are crustaceous fish?

A. Those called crustaceous are such as have a shell, not quite impenetrable, but rather resembling a firm crust, and in some measure capable of yielding: there are two kinds, the chief of one is the lobster, and with it may be ranked the crab, the prawn, the cray-fish, and the shrimp. The chief of the other is the tortoise, and its varieties, such as the turtle, &c.

Q. What are testaceous fish?

A. Such as have hard shells, of a stony substance, which, like that of the oyster, muscle, &c., serves to protect the fish it encloses. They are divided into three kinds, namely, *univalve*, or *turbinated*, consisting of one piece, like the house of a snail; the *bivalve*, consisting of two pieces, united by a hinge, like an oyster; and the *multivalve*, consisting of more than two pieces, as the acorn shell, which is formed of not less than twelve pieces. All these kinds, in numberless variety, are found in the sea at different

depths, and are valuable in proportion to their scarceness and beauty.

CHAP. XXVI.

REPTILES.

Q. However uninteresting, or even disgusting, the figure and properties of some reptiles may appear, yet as they form a part of animated nature, we must not wholly overlook them.

A. The reptile race may be divided into four tribes, and may be classed under the *frog*, *toad*, *lizard*, and *serpent* kinds; the two former are so well known, that I shall not describe their formation, but I shall merely observe, that a very great error generally exists with respect to the *toad*.

Q. What is the error to which you allude?

A. It has been thought that toads contain poison, and that they have the power of ejecting it; but the fact is, that they are torpid, harmless animals, passing the greatest part of winter in sleep, and no more deserve inhuman treatment

than those animals which we consider useful and handsome.

Q. Which is the principal reptile of the *lizard* tribe?

A. The *crocodile*, which is not only the most terrible and mischievous of the lizard tribe, but also of all those animals which nature has produced. It is a native both of Africa and America, and frequently grows to the size of twenty feet in length, and five feet in circumference. Its skin is defended by a suit of armour composed of large scales, almost impenetrable to a musket ball; and the belly is the only vulnerable part.

Q. Is not the crocodile very rapacious?

A. Yes; this fierce and formidable creature spares neither man nor beast. It springs upon its victim, and instantly drags him into the water; and not even the tyger can escape its vindictive fury.

Q. Describe the serpent tribe?

A. They have neither legs, wings, or fins, yet they are, notwithstanding, tolerably swift in their movements. When we view any of the serpent race, it excites a sensation of horror; for some of them are terrible from their magnitude and

strength, and attack both men and animals without distinction. Happily for us, these monsters are not to be met with in Europe; but in the tropical regions, where the climate is sultry and the forests thick, these dangerous reptiles abound.

Q. What is the *boa*?

A. The boa, or liboya, is an enormous serpent, generally thirty feet long, and of a proportionable thickness; its colour is of a dusky white, variously spotted; its scales are round, small and smooth. When it attacks any animal it raises itself upright on its tail; and there have been many extraordinary facts related of its powers.

Q. Give me a short account of one of its surprising feats.

A. A serpent had been waiting some time near the brink of a pool, in expectation of its prey, when a buffalo was the first victim that presented itself. Having darted upon the animal, it began to wrap itself round it, and at every twist the bones of the buffalo were heard to crack. The poor animal struggled and bellowed; but its terrible enemy encircled it the more closely, till at length, all it bones being crushed to pieces, the

serpent untwined its folds, and swallowed the buffalo at its leisure.

Q. Is not the *rattle-snake* a dreadful reptile?

A. Yes: it possesses the most direful poison, and is distinguished for the fatal effects of its bite and the rattle in its tail, with which it makes a loud noise on the least motion.

Q. Of what is its rattle composed?

A. The rattle is composed of several thin, hard, and hollow bones, linked together, and appears to have been given it by the wise Author of Nature for the purpose of warning other creatures of its approach. The malignity of its venom is such, that the pain soon grows insupportable, and persons who have been bitten have been known to expire in less than six hours after.

Q. Are all the serpent tribe venomous?

A. No, not a tenth part of them; and those that are so, generally act only on the defensive. The only venomous one which is known to exist in this country is the viper. The common snake is the largest we have, and is perfectly harmless.

CHAP. XXVII.

*INSECTS.**

Q. Briefly describe a few of those insects which are remarkable for their inconveniences or benefits to mankind.

A. Among all the insect tribes, the *scorpion* is the most terrible; its figure is hideous, and its sting generally fatal. In scripture they are frequently mentioned for their mischievous malignity. In shape the scorpion somewhat resembles a lobster, but it is beyond all comparison more horrible. Its fierceness is dangerous, not only to all other creatures, but also to its own species, and two never meet without fighting till one of them is destroyed.

Q. What kind of insect is a *locust?*

A. A locust is not much unlike our large grasshoppers in form, and is about two inches and a half in length, with a brownish body, blue

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* For a copious and entertaining account of the properties and habits of *Insects*, the reader is referred to Pinnock's Catechism of *Entomology*.

legs, and wings of a yellowish brown, spotted with black; they are very common in some parts of the east, and at times do incredible mischief by destroying the produce of the fields and gardens.

Q. Are they not eaten by the inhabitants of some countries?

A. Yes; the Ethiopians and Parthians are recorded, from the earliest periods of antiquity, to have occasionally subsisted on them. The Hottentots also delight in them, and many of the African tribes dress them in various ways, and consider them a delicacy.*

Q. What is the Spanish fly?

A. The Spanish fly, or blistering lytta, is an insect about an inch in length, of shining blue-green colour. It is found in most parts of Europe, and feeds on the leaves of various trees.

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* We are told in Scripture, that the food of St. John the Baptist, in the wilderness, was "locusts and wild honey;" and as the insects here described are known to be eaten, it has been imagined that they formed part of the food of St. John. The fact, however, appears to be otherwise, for at the present day there is a vegetable resembling a bean, which grows wild in Palestine, and is known by the name of *locust*. The locust-tree is called by Botanists *Acacia*.

Q. What are they used for?

A. They are used in medicine by the name of *cantharides*, for blistering plasters, and also as an internal remedy for many diseases. They are imported from Spain and Italy; and as they are generally in a torpid state during the day time, they are easily collected by shaking them from the trees, on a cloth spread underneath for the purpose of receiving them.

Q. Give me some account of the silk-worm?

A. The silk-worm is an insect resembling a caterpillar, and produces that ornament of our dress, so much admired, called silk. As this insect lives but a short time, it is continually employed in spinning its silk, which nature has taught it to perform with such infinite art as to astonish all those who behold it.

Q. Describe the bee?

A. The bee is a well-known insect, of a brown colour, and rather hairy body. They live in numerous societies, either in decayed trees, or in habitations prepared for them, called hives. Each hive contains a single female, called the *queen bee;* about 1,600 males, called *drones;* and about 20,000 of neither sex, called *working-bees.* Upon the latter, the whole trouble devolves of

constructing the combs, and collecting and forming the honey.

Q. What have you further to remark of them?

A. Of all winged insects none are more wonderful or more beneficial to man than bees. In some countries bees are an object of great attention to the peasant, and their honey and wax are considerable articles of trade. It would, however, be impossible to enter into particulars in this place: I shall therefore only observe that their civil and domestic economy, and their unwearied industry, alike entitle them to our regard and imitation.

THE END.

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